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ABSTRACT

This study sought to develop theoretical propositions for the institutional, course, instructor, and student characteristics of the learning environment where interactive learning techniques are used in college-level business courses. Using an interpretive case study method with examination of documents, observations of instructors and students, and interviews with instructors and students, three courses were studied: a principles-level accounting course for undergraduate students in a business administration and economics department, a graduate-level Business and Society course taught to first-year business school students enrolled part-time in an evening course, and a principles-level marketing course taught to non-traditional adult students in a Continuing Education Program. The results yielded a set of institutional, course, instructor, and student characteristics consistent with interactive learning and representing a shift from the traditional passive-learner model. Results point to a humanistic approach where learning is interactive, student motivation is intrinsic, and instructors believe students are motivated and can assume responsibility for learning. Included are recommendations for practice, aimed at administrators and instructors, and recommendations for further research. (JB)

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CHARACTERISTICS OF INTERACTIVE LEARNING ENVIRONMENTS IN BUSINESS MANAGEMENT COURSES

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CHAPTER VIII

Summary, Conclusions, and Recommendations

Summary.

As American business and industry has become increasingly concerned with its ability to compete in the global marketplace, focus has been placed on management's ability to respond to rapid changes in the business environment. One key area of concern is business management education.

Business schools have been criticized for failing to address the needs of American business (Silk, 1989; Fuchsberg, 1990; Greising, 1989; Gaedeke and Tootelian, 1989; Falvey, 1989; Porter and McKibbin, 1988; Louis, 1990). Business school graduates were characterized as "flesh-and-blood calculators ... who cannot write well and cannot verbalize their ideas succinctly and clearly" (Greising, 1989, p. 140). Business school graduates were criticized for their lack of communication skills, leadership skills, creativity, vision, and values.

What can business schools do to address these criticisms? Both Louis (1990) and Rehder, Porter and Muller (1990) recommended that business instructors adopt interactive learning techniques. Louis (1990) recommended that business

instructors use teaching methods such as cases, simulations, and team assignments in order to improve people skills and develop the students' sense of organizational realism. Rehder, Porter and Muller (1990) proposed a "learning alliance model" in business schools that essentially changes the culture of business schools. In the "learning alliance model", learning is an interactive process. Instructors are Theory Y instructors (Knowles, 1980) that believe that students are intrinsically motivated students that are capable of assuming responsibility for their own learning.

Recommendations for interactive learning techniques (ILT) are not limited to business schools. Active learning across the college-level curriculum was recommended by Cooper and Prescott (1989), the National Institute of Education (1984), the Association of American Colleges (1985), Cross (1987) and Chickering and Gamson (1987).

Definition of interactive learning techniques. Interactive learning techniques are teaching methods that are used in the classroom in order to stimulate student-instructor and student-student interaction. Interactive learning techniques include role-playing, simulation, learning pairs, group exercises, brainstorming sessions, and case study discussions. The term, "learning techniques" is used instead of the more common term, "teaching methods" because the emphasis is placed on the student instead of the instructor.

Statement of the problem. The focus of this study was to develop theoretical propositions of the characteristics of the learning environment where interactive learning techniques are used in college-level business courses. These characteristics include institutional characteristics, course characteristics, instructor characteristics, and student characteristics.

Review of literature. This study "fills a void" in the literature because it is a naturalistic, "direct" (Mintzberg, 1979) study that was designed to develop theoretical propositions.

Descriptive articles, experimental studies, and process-product studies of ILT in business management education were reviewed. The descriptive articles were narrative accounts of various interactive learning techniques that were used in various business management courses. The experimental studies compared one teaching methods. The process-product studies (Shulman, 1986) measured context variables (student characteristics/formative experiences and school/community/classroom contexts), process variables (teacher and student behaviors), and product variables (immediate or long-term effects on students).

The descriptive articles (Whitlow, 1978; Bivins, 1984; Carl, 1982; Wesson, 1984; Guillermo, 1982; Geist, 1984; Krayer, 1987; O'Grady and O'Reilly, 1977; Marlier, 1987; Hunt, Lederman, Kreps, and Ruben, 1985; Douglas, 1990; Pettijohn and Adamson, 1990; Wu, 1988) did not include students' perspectives of their learning experiences. Classrooms were not observed; the descriptive articles represented a personal account of the instructor's experiences. Since the instructors were "too close to the situation", there is no assurance that the description of the interactive learning techniques is an accurate description of how the interactive learning techniques were used in the classroom. One can only determine if the espoused theory is similar to what actually happens in the classroom (theories-in-use) if the activity is observed in the actual classroom setting (Argyris, 1980).

Key problems with the experimental (Moghaddam, 1973; Wentworth and Lewis, 1975; Fritzsche, 1981; Stevens, 1985; McKenney, 1962) and process-product studies (Fraas, 1982; Hallgren, 1982; Combs and Bourne, 1989; Sexton and Bowman-Upton, 1988) were:

1. Inconclusive findings. Three studies provided statistical support for interactive learning techniques; three indicated that there was not difference between interactive learning techniques and traditional teaching methods; and one study indicated that the traditional teaching method was more effective.

2. Studies were reductionalistic. The complexities of instruction were reduced to a comparison of one teaching method to another in the experimental studies.

3. Threats to validity. Threats to internal validity (selection bias, diffusion or imitation of treatment), statistical conclusion validity (reliability of treatment implementation), and construct validity (Hawthorne effect and confounding because the criterion was based on understanding of a text) were found.

4. Ethical considerations. In some studies, there is an ethical issue regarding the treatment of students in the control group. How does the treatment of students in the control group affect accomplishment of the mission of most educational institutions? For example, in the Hallgren (1982) study, was it ethical to suppress students' questions for clarification? Does this promote or dissuade learning for students in the control group?

The theoretical propositions can be used by practitioners and administrators as a foundation for instructional planning. Educational researchers can use the theoretical propositions as a foundation for further research.

Research objectives. The following key research objectives guided this study:

1. To describe the instructor's perceptions of the role of instructors and conceptions of teaching and learning.

2. To describe the instructor's rationale for using ILT in the classroom.

3. To describe the instructor's perception of and attitudes towards students.

4. To describe class sessions where ILT are used.

5. To gain insight into students' perceptions of education, ILT, role of instructors, role of students, role of peers, and view of knowledge.

6. To identify espoused theories and theories-in-use.

Theoretical foundations. The theoretical foundations of this study were chosen after an extensive review of the literature. The "common threads" in the literature are representative and provocative conceptualizations that lead to the process of developing an understanding of the characteristics of the learning environment where interactive learning techniques are used.

The theoretical foundations of this study are:

1. roles of instructors (McKeachie, 1986)
2. key conceptions of teaching (Scardamalia and Bereiter, 1989)
3. adult development theories (Perry, 1970 and Loevinger, 1976)
4. humanistic paradigm of adult learning (Knowles, 1980 and Rogers, 1969)
5. espoused theories versus theories-in-use (Argyris, 1980)

As an instructor at the college level, the researcher has observed that each instructor brings to his or her classroom a philosophy or guiding eidos regarding his or her role in the classroom, his or her attitude toward students, and his or her conception of the nature of teaching (Grundy, 1987). McKeachie's (1986) roles of college instructors provides a classification of various roles of instructors. The key conceptions of teaching (Scardmalia and Bereiter, 1989) were used as a theoretical foundation in this study because an

instructor's conception of the practice of teaching is closely related to his or her perceived role of instructors and attitudes toward students.

The review of literature lead the researcher to believe that learning is an "integrated cognitive and socio-emotional process" (Kolb and Fry, 1975, p. 34). The theoretical concepts of Perry (cognitive and ethical development) and Loevinger (ego development) were used because:

1. Both theorists developed adult development stages based on research on college students.

2. There is internal consistency between both theorists (Chickering, 1981).

3. A "common thread" in the review of descriptive articles was that instructors considered both cognitive and affective objectives when developing instructional activities.

4. Instructors that believe that teaching is producing conceptual change (Scardmalia and Bereiter, 1989) use information regarding students' level of knowledge and cognitive processing ability to plan instruction (Anderson, 1989 and Wang and Palincsar, 1989). One of the research questions focused on the instructor's knowledge of stages of adult development.

5. This dual focus on both intellectual and ego development is consistent with the humanistic approach to teaching and learning. Significant, meaningful learning

involves the "whole person"; both cognitive and affective domains are important (Rogers, 1969).

6. Chickering (1981) indicated that there is a link between the stage of cognitive and socio-emotional development of students and the type of instructor students prefer.

A humanistic approach to teaching (Knowles, 1980; Rogers, 1969) was a consistent theme in both the recommendations to business schools and the descriptive articles.

Argyris' (1980) concept of espoused theories versus theories-in-use provided a framework for triangulating the multiple data sources and multiple perspectives in this study.

Research Design. The research strategy (Yin, 1984) for this study was an interpretive case study method. A Type 4 case study design (Yin, 1984) was used. The Type 4 design uses multiple cases and multiple units of analysis. Smith (1979) expanded the multi-method, multi-trait approach used in psychological measurement to the multi-method, multi-person, multi-situation and multi-variable approach for case study research. In this study, the multi-methods, multi-persons, multi-situations, and multi-variables are as follows:

1. Methods

    1.1 Documents (syllabi)
    1.2 Interviews
    1.3 Observations
    1.4 Mini-focus groups or one-on-one depth interviews

2. Persons

    2.1 Instructors
    2.2 Students

3. Situations

    3.1 Multiple courses and/or institutions

4. Variables

    4.1 Perceived role of instructors
    4.2 Conceptions of teaching
    4.3 Rationale for using interactive learning techniques
    4.4 Perceptions and attitudes towards students
    4.5 Students' perceptions of interactive learning techniques
    4.6 Espoused versus Theories-in-Use

Data collection methods/sources. The data collection methods and sources used in this study were: (a) content analysis of the syllabus and other available written material

(class handouts, student evaluation forms, and manuscripts), (b) instructor interview(s), (c) observations of three or more class sessions for each case study, and (d) a mini-focus group or one-on-one depth interviews with students. Because of the flexibility inherent in qualitative research designs, one-on-one depth interviews were used for the adult students in the third case and the graduate students in the second case. Similarly, the instructor that participated in the second case voluntarily submitted some of his published and unpublished manuscripts and student evaluation forms from past trimesters.

Sampling. A snowball referral technique was be used to select instructors to participate in the study (Bogdan and Biklen, 1982). Business school deans, department chairpersons, and instructors were contacted in order to identify participants for the three theoretical cases that were studied.

Although each of the three cases are based on one educational institution, each of the cases represents different departments with different missions, instructors, and students. The first case was based on a principles-level accounting course taught to traditional undergraduate students in a business administration and economics department. The second case was based on a graduate-level Business and Society (business ethics) course taught to first-year MBA students enrolled in a part-time, evening MBA program. The third case was based on a principles-level marketing course taught to

non-traditional adult students in a Continuing Education Program (CEP). Since the comparison groups were maximized, the theoretical propositions for course characteristics, instructor characteristics, and student characteristics represent a formal theory (Glaser and Strauss, 1967; Strauss and Corbin, 1990). However, since each of the three comparison groups were part of one educational institution, the theoretical propositions for institutional characteristics represent a substantive theory. Recommendations for developing a formal theory regarding institutional characteristics are discussed in the "Recommendations for Further Research" section of this chapter.

Pseudonyms were used to protect the identify of faculty members and students who participated in the study. Similarly, a pseudonym was used for the academic institution studied.

Types of field notes. Four kinds of field notes were used in data collection (Kirk and Miller, 1986). Verbatim accounts are accounts of interviewee's responses and observations. Interpretive asides are ideas and insights that arise in the course of data collection. The field work journal is a reflexive journal that is used by the researcher to list accounts of experiences, problems, and breakthroughs. The running record of analysis and interpretation is used by the researcher in the process of concurrently analyzing and collecting data.

Data analysis. Eisenhardt's (1989) process of building theory from case study research was used in the data analysis stage of the research. The following steps were used to develop the theoretical propositions of the study: (a) defining research questions and constructs, (b) selecting theoretical cases, (c) developing instruments and research protocols, (d) collecting data for each case, (e) analyzing within-case data, (f) cross-case analysis, (g) developing propositions, (h) compare propositions with literature, and (i) reaching closure.

Evaluation of the research design. Lincoln and Guba (1985) developed specific criteria for evaluating qualitative research because the ontological, epistemological, and axiological assumptions of qualitative research differ from the assumptions of quantitative research. Criteria used to evaluate the credibility of qualitative research are: (a) trustworthiness, (b) transferability, (c) reflexivity, and (d) confirmability.

Trustworthiness criteria are:

1. Natural setting versus contrived setting. In this study, the setting for each case was a natural setting.

2. Prolonged engagement and persistent observation. In this study, a minimum of five site visits were required for each case. Each site visit lasted a few hours.

3. Triangulation of data sources and methods. In this study, data sources and data methods were triangulated.

4. Peer debriefing. Members of the researcher's dissertation committee served the role as peer debriefees as they were consulted regarding research design, interpretations, and fieldwork decisions.

5. Negative case analysis. Lincoln and Guba (1985) defined negative case analysis as the "process of revising hypotheses with hindsight" (p. 309). Negative case analysis was used in both within-case and cross-case analysis.

6. Member checks. In this study, member checks of department chairs, deans, instructors and students were used.

Transferability is similar to external validity. Thick, vivid description in each case report is evidence of transferability (Lincoln and Guba, 1985). Each case report developed for this study contains thick, vivid description.

The use of a field work journal supports the criterion of reflexivity (Lincoln and Guba, 1985). The fieldwork journal was used to help the researcher to see emerging patterns and to be aware of personal bias.

Confirmability is similar to neutrality or objectivity. The use of interpretive asides to separate verbatim accounts from personal interpretations was used to take "value-free" notes.

3. The instructor provides a high level of challenge and support to students.

4. The instructor who uses interactive learning techniques fits the humanistic paradigm of adult education (Knowles, 1980). The following characteristics describe interactive instructors who are facilitators in the classroom:

The instructor prefers a relaxing and non-threatening classroom environment.

The instructor shows an understanding of and empathy for students.

The instructor focuses on developing the "whole person".

The instructor believes in using positive reinforcement in the classroom.

The instructor involves students in their learning.

The instructor is a "real" and genuine person in the classroom.

The instructor explains the relevance of the subject matter to students and uses relevant examples that draw upon the experience base of students in the class.

The instructor is a Theory Y instructor who believes that students are self-directed individuals that are intrinsically motivated to learn the material.

The instructor fosters a cooperative learning environment.

5. The instructor is enthusiastic about teaching his or her subject matter.

Theoretical Propositions. The following theoretical propositions were developed:

Institutional Characteristics:

1. The institution places primary emphasis on the professor's dedication to the university; dedication to an academic department and discipline are secondary.

2. The institution places emphasis on providing support to students as an institutional norm.

3. The "teach or perish" mandate (Grant and Riesman, 1976) at student-centered universities is designed to reward instructors who develop excellence in teaching.

4. Institutions with a "horse and buggy" curriculum (Chickering, 1976) place emphasis on interaction and the development of cognitive skills.

Course Characteristics:

1. The type of course affects the level of emphasis placed on content versus process when using interactive learning techniques.

2. The class size affects the type of interactive learning techniques used and the degree of choice students are given.

Instructor Characteristics:

1. The instructor who uses interactive learning techniques is in either the practical or emancipatory curriculum paradigm (Grundy, 1987).

2. The instructor has a cognitive-mediational perspective of teaching and learning.

6. The instructor uses a variety of sources to inspire him or her to develop or use interactive learning techniques.

7. The instructor uses humor in the classroom. Students feel comfortable using humor in their interactions in the classroom.

8. Interactive learning techniques are used to help students to understand theories and concepts.

9. Instructors are aware that students are at varying stages of intellectual and socio-emotional development. A variety of teaching methods are used in order to "reach" the majority of students.

10. The instructor uses the appropriate level of structure and control in class depending on the class size, type of student, and performance level of students.

11. The instructor views education as a dynamic, evolutionary process. Teaching methods and course structure are changed in response to students' needs.

Student Characteristics:

Students who have a positive attitude toward interactive learning techniques range from lower stages to higher stages of cognitive (Perry, 1981) and socio-emotional development (Loevinger, 1976).

Conclusions.

The theoretical propositions of this study were consistent with many of the recommendations to business educators discussed in Chapter I. Rehder, Porter, and Muller (1990) recommended a shift from the traditional passive-learner model in business management education to a "learning alliance model". This shift is similar to the "paradigm shift" recommended by Dean Rosenblume that was described in the second case which was based on the Business and Society course. Rehder, et. al. (1990) recommended a humanistic approach to business education where: (a) learning is interactive, (b) student motivation is intrinsic, and (c) instructors are Theory Y instructors. One of the key theoretical propositions of this study focuses on the facilitative role of the instructor and a humanistic approach to business education.

Recent higher education reform reports emphasized the importance of involving and engaging students in their learning (Cooper and Prescott, 1989; Association of American Colleges, 1985). In this study, instructors who used interactive learning techniques were enthusiastic instructors who successfully involved students in their own learning.

The National Institute of Education (1984) encouraged instructors to diversify their teaching styles; Chickering and Gamson (1987) suggested that instructors respect students' different learning styles. The study found that instructors

used a variety of teaching methods in order to "reach" the majority of students with various learning styles. In addition, instructors used the appropriate level of structure and control in class depending on the class size, type of student, and performance level of students.

Both Cross (1987) and Chickering and Gamson (1987) recommended that instructors set high expectations for students. It was found that instructors who use interactive learning techniques have a high level of cognitive demand in their courses as well as offering support to students. In addition, it was found that interactive instructors foster a cooperative learning environment in the classroom. This is consistent with Chickering and Gamson's (1987) recommendation for fostering cooperation among students.

Recommendations for Practice.

The following recommendations for practice are recommendations for administrators and business management instructors in higher education. These recommendations were developed with awareness of the constraints such as budget constraints that both administrators and faculty face in higher education.

The following recommendations are for administrators:

1. Emphasize the importance of interactive learning and support to students as an institutional norm. While this is easily accomplished at "teach or perish" institutions, research institutions can increase the level of emphasis on developing excellence in teaching.

However, research institutions must provide a mechanism for supporting and rewarding instructors for innovative instruction because of the prevalence of the "publish or perish" norm.

2. Develop in-service training programs for business management instructors. Instructors should be made aware of the characteristics of instructors who use ILT. Instructors should be provided with a wealth of ideas and resources to support the development of ILT. Instructors should be aware of the varying stages of intellectual and ego development of students and learning styles. This knowledge will help the instructor to meet students' needs.

3. When recruiting instructors, the administrator should be aware of the characteristics of interactive instructors. This type of instructor: (a) challenges and supports students, (b) is humanistic in his or her approach to teaching, (c) views his or her role as a facilitator of learning, (d) is enthusiastic, (e) has a sense of humor, (f) has a cognitive-mediational view of teaching and learning and (g) believes that education is a dynamic, evolutionary process.

The following are recommendations for instructors:

1. Some instructors have a misconception that ILT are peripheral "fun and games" type of activities. Instructors who are interested in using ILT in their courses should be aware that ILT can be used to place emphasis on content, process, or a combination of content and process. Therefore, an accounting instructor who is pressured to cover a great deal of content in a semester can use ILT to help students understand the key concepts.

2. Also, some instructors have a misconception that ILT can only be used in very small classes. In these times of declining enrollment and fiscal constraints, even small institutions are increasing the average class size. ILT can be implemented in larger class sizes when the appropriate ILT is used and students are given the appropriate degree of

choice. For example, in the first case, Professor Gallagher developed highly structured ILT because her classes had over 50 students.

3. The instructor must be aware of the differences in class size, type of student, and performance or ability level of his or her students when structuring and implementing ILT.

Recommendations for Further Research.

Since each of the three cases was based on three different types of programs in one educational institution, a formal theory (Glaser and Strauss, 1967; Strauss and Corbin, 1990) has been developed for course characteristics, instructor characteristics, and student characteristics. The three cases were based on a traditional undergraduate business program, an MBA program, and a continuing education program for adult students. Each of these three programs has different educational missions, administrative structures, curriculums, instructors, and students. Differences among comparison groups were maximized. When differences are maximized, there is an increased probability that the researcher will collect different data yet find strategic similarities among groups (Glaser and Strauss, 1967). By maximizing differences among the cases, the scope and generality of the theory has been broadened.

However, since the cases were based on program areas in one educational institution, the institutional characteristics that were formulated represent a substantive, not formal theory (Glaser and Strauss, 1967; Strauss and Corbin, 1990). It is recommended that additional case studies be conducted across a variety of educational institutions that offer business management programs. Other types of institutions that should be studied are: community colleges, open admissions private institutions, non-church related private

liberal arts institutions, and public colleges and universities. Theoretical propositions developed as a result of a cross-case analysis based on a variety of educational institutions would represent a formal theory regarding institutional characteristics.

Students in less diverse settings (traditional, liberal arts, white, middle-class) can be compared to diverse settings (non-traditional, open admissions, diversity in terms of age, life, experience, background, ethnicity, race, gender). The hypotheses is that in the more diverse setting, there is an easier fit with ILT because of increased class participation.

In order to extend the formal theory to postsecondary education in general, case studies of business management courses could be compared with case studies of other disciplines. Since the majority of business management courses are based on the social sciences, courses in pure and applied social sciences could be studied.

Surveys would be an appropriate technique to obtain data from a large number of respondents. Some research objectives that could be explored using survey research techniques are:

1. To what extent is ILT used in student-centered versus research-based institutions?
2. To what extent does the type of course affect the implementation of ILT?

3. What is the relationship between students' preference for ILT and grade point average?

4. Is the rationale for ILT different in a vocationally-oriented program versus liberal arts oriented program?